

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

DNREC

Delaware Manufacturing Extension Partnership

State Agency Reduces Backlog Using Value Stream Mapping

Client Profile:

The Delaware Department of Natural Resources and Environmental Control (DNREC) is a state agency tasked with protecting and managing the state's vital natural resources, protecting public health and safety, providing quality outdoor recreation and serving and educating businesses and citizens of Delaware about the wise use, conservation and enhancement of Delaware's environment. The agency employs 25 people at its Dover, Delaware, office.

Situation:

In spring 2004, the State of Delaware sought to work closely with the Delaware Economic Development Office in treating its regulated industries as customers and working with them on improving the permitting process. The governor asked DNREC to identify specific processes, and the agency chose Regulation 2 air quality permits. Specifically, the agency wanted to improve the permitting process, reduce processing time, create certainty about the process among the regulated industry users, optimize DNREC's resources for other functions, and improve environmental quality. There were nearly 200 applications backlogged in the permitting pipeline. DNREC spoke with members of its regulated community and learned that the majority of process problems stem from the permit applications. For example, regulated businesses frequently left portions of the application blank because the boxes were grayed out, leading applicants to believe the boxes were for departmental use, only. Other feedback included: 1) It was difficult to know which form to complete; 2) It was difficult to know where and how to obtain requested information; 3) It was difficult to know which questions to answer and which ones are not applicable; 4) Applicants would like help with engineering calculations; and 5) Applicants would like to know why specific information is requested. A number of states such as Michigan, Iowa, Minnesota and Nebraska have improved their environmental permitting processes by borrowing lean manufacturing approaches from the private sector. Significantly, these permitting process improvements occurred while maintaining, and in some cases, improving, the environmental and public health benefits of the permitting programs. DNREC turned to the Delaware Manufacturing Extension Partnership (DEMEP), a NIST MEP network affiliate, to adopt Value Stream Mapping.

Solution:

DNREC mapped its current state and identified areas for Kaizen burst events to reduce waste, improve productivity, and achieve continual improvement. Using Value Stream Mapping, DNREC laid out its intended future state goals: Internal first pass quality yield - 80 percent; customer information quality - 80 percent; customer information quality - 80 percent; administrative completeness - 100 percent; technical completeness - 80 percent; re-work less than 50 percent; and construction permit issued within 90 days.

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Results:

- * Meet with applicants for a pre-submittal meeting to explain what is needed, and the applicant can have a completed application as soon as the end of that meeting or shortly thereafter.
- * Use an administratively complete gate and a technically complete gate to prevent one incomplete application from holding up others.
- * Use visual tracking boards to follow where all the applications are in the permitting process.
- * Has a first-in-first-out system.
- * Applications are more user friendly.
- * Reduced air quality permit backlog from 199 applications on Aug. 24, 2005, to 48 by January 11, 2006.
- * Reduced average permitting time from 180 days to 61 days upon acceptance of completed application.

Testimonial:

"This is a well-kept secret within the agency. Within this year we will see this program applied to other processes within the agency."

David Small, Deputy Secretary